

JUL 14 Rec'd PCT/TO 09 JAN 2002

FORM PTO-1390 (Modified)
(REV 11-2000)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

**TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 U.S.C. 371**

09669/017001

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR

10/030653

INTERNATIONAL APPLICATION NO.
PCT/EP00/06001

INTERNATIONAL FILING DATE
28 JUNE 2000

PRIORITY DATE CLAIMED
09 JULY 1999

TITLE OF INVENTION

PAYPHONE MANAGEMENT SYSTEM

APPLICANT(S) FOR DO/EO/US

Rodolphe GRUNENWALD

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (24) indicated below.
4. ☒ The US has been elected by the expiration of 19 months from the priority date (Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371 (c) (2))
 - a. ☐ is attached hereto (required only if not communicated by the International Bureau).
 - b. ☒ has been communicated by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
 - a. ☒ is attached hereto.
 - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
 - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
 - b. ☐ have been communicated by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☒ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
10. ☐ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).
11. ☒ A copy of the International Preliminary Examination Report (PCT/IPEA/409).
12. ☒ A copy of the International Search Report (PCT/ISA/210).

Items 13 to 20 below concern document(s) or information included:

13. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
14. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
15. ☐ A **FIRST** preliminary amendment.
16. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
17. ☐ A substitute specification.
18. ☐ A change of power of attorney and/or address letter.
19. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825.
20. ☐ A second copy of the published international application under 35 U.S.C. 154(d)(4).
21. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
22. ☒ Certificate of Mailing by Express Mail
23. ☐ Other items or information:

US14 Rec'd PCT/PTO 09 JAN 2002

FORM PTO-1390 (Modified)
(REV 11-2000)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

**TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 U.S.C. 371**

09669/017001

U.S. APPLICATION NO. (IF KNOWN, SEE 37 CFR

10/030653

INTERNATIONAL APPLICATION NO.
PCT/EP00/06001

INTERNATIONAL FILING DATE
28 JUNE 2000

PRIORITY DATE CLAIMED
09 JULY 1999

TITLE OF INVENTION

PAYPHONE MANAGEMENT SYSTEM

APPLICANT(S) FOR DO/EO/US

Rodolphe GRUNENWALD

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:


1. ☒ This is a **FIRST** submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a **SECOND** or **SUBSEQUENT** submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This is an express request to begin national examination procedures (35 U.S.C. 371(f)). The submission must include items (5), (6), (9) and (24) indicated below.
4. ☒ The US has been elected by the expiration of 19 months from the priority date (Article 31).
5. ☒ A copy of the International Application as filed (35 U.S.C. 371 (c) (2))
 - a. ☐ is attached hereto (required only if not communicated by the International Bureau).
 - b. ☒ has been communicated by the International Bureau.
 - c. ☐ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☒ An English language translation of the International Application as filed (35 U.S.C. 371(c)(2)).
 - a. ☒ is attached hereto.
 - b. ☐ has been previously submitted under 35 U.S.C. 154(d)(4).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371 (c)(3))
 - a. ☐ are attached hereto (required only if not communicated by the International Bureau).
 - b. ☐ have been communicated by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☒ have not been made and will not be made.
8. ☐ An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☒ An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4)).
10. ☐ An English language translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371 (c)(5)).
11. ☒ A copy of the International Preliminary Examination Report (PCT/IPEA/409).
12. ☒ A copy of the International Search Report (PCT/ISA/210).

Items 13 to 20 below concern document(s) or information included:

13. ☐ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
14. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
15. ☐ A **FIRST** preliminary amendment.
16. ☐ A **SECOND** or **SUBSEQUENT** preliminary amendment.
17. ☐ A substitute specification.
18. ☐ A change of power of attorney and/or address letter.
19. ☐ A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 35 U.S.C. 1.821 - 1.825.
20. ☐ A second copy of the published international application under 35 U.S.C. 154(d)(4).
21. ☐ A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).
22. ☒ Certificate of Mailing by Express Mail
23. ☐ Other items or information:

531 Rec'd PCT/

09 JAN 2002

U.S. APPLICATION NO. (IF KNOWN) SEE 37 CFR 1.53 107030653		INTERNATIONAL APPLICATION NO. PCT/EP00/06001	
		ATTORNEY'S DOCKET NUMBER 09669/017001	
24. The following fees are submitted: BASIC NATIONAL FEE (37 CFR 1.492 (a) (1) - (5)) : <input type="checkbox"/> Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO \$1040.00 <input checked="" type="checkbox"/> International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO \$890.00 <input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$740.00 <input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4) \$710.00 <input type="checkbox"/> International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4) \$100.00 ENTER APPROPRIATE BASIC FEE AMOUNT =		CALCULATIONS PTO USE ONLY	
Surcharge of \$130.00 for furnishing the oath or declaration later than months from the earliest claimed priority date (37 CFR 1.492 (e)). <input type="checkbox"/> 20 <input type="checkbox"/> 30		\$890.00	
		\$0.00	
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE
Total claims	20 - 20 =	0	x \$18.00
Independent claims	1 - 3 =	0	x \$84.00
Multiple Dependent Claims (check if applicable).		<input checked="" type="checkbox"/>	
TOTAL OF ABOVE CALCULATIONS		=	\$1,170.00
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27). The fees indicated above are reduced by 1/2.			\$0.00
SUBTOTAL		=	\$1,170.00
Processing fee of \$130.00 for furnishing the English translation later than months from the earliest claimed priority date (37 CFR 1.492 (f)). <input type="checkbox"/> 20 <input type="checkbox"/> 30		+	\$0.00
TOTAL NATIONAL FEE		=	\$1,170.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31) (check if applicable).		<input type="checkbox"/>	\$0.00
TOTAL FEES ENCLOSED		=	\$1,170.00
		Amount to be:	\$
		refunded	\$
		charged	\$
<p>a. <input checked="" type="checkbox"/> A check in the amount of \$1,170.00 to cover the above fees is enclosed.</p> <p>b. <input type="checkbox"/> Please charge my Deposit Account No. _____ in the amount of _____ to cover the above fees. A duplicate copy of this sheet is enclosed.</p> <p>c. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 50-0591. A duplicate copy of this sheet is enclosed.</p> <p>d. <input type="checkbox"/> Fees are to be charged to a credit card. WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.</p> <p>NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.</p> <p>SEND ALL CORRESPONDENCE TO:</p> <div style="border: 1px solid black; padding: 5px; width: 450px;"><p>ROSENTHAL & OSHA L.L.P. 1221 McKinney, Suite 2800 Houston, Texas 77010</p><p>Telephone: (713) 228-8600 Facsimile: (713) 228-8778</p></div> <div style="width: 450px;"><p style="text-align: center;"> SIGNATURE</p><p>Jonathan P. Osha NAME</p><p>33,986 REGISTRATION NUMBER</p><p>January 9, 2002 DATE</p></div>			

5. System according to claim 1, further comprising an communication interface between the remote access server and the set of information servers able to monitor, synchronise and regulate information exchange sessions between the payphones and the information servers.

6. System according to claim 5, wherein the said information exchange session monitoring comprises establishing a reliable and authenticated session between a payphone and an information server and in piloting and regulating the information exchange made via a standard file transfer complying with the Internet protocols.

7. System according to claim 5, the said information exchange sessions include payphone management sessions between the management servers and the payphones.

8. System according to claim 7, wherein the said management sessions include initialisation sessions for the payphones, daily reports, alarm reports, downloading of software programmes and/or files, report on transactions.

9. System according to claim 8, wherein the said files include rate tables, configuration parameters, opposition or monitoring lists, files on the payphone status.

10. System according to claim 7, wherein the said management servers comprise a supervision server and a software programme and/or file server.

11. System according to claim 5, wherein the said information exchange sessions include sessions for providing services between servers of services and the payphones.

12. System according to claim 1, wherein the set of information servers is arranged into a local network.

13. System according to claim 11, wherein the said services comprise on line services provided on Internet or self-managed on the local network.

14. System according to claim 13, wherein the said services provided on line include electronic mail, E-commerce.

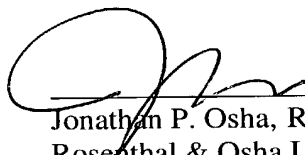
15. System according to claim 13, wherein the said services provided online comprise the content of Web pages for which the hyperlinks are attached to the function keys of payphones.

16. System according to claim 13, wherein the said services provided on the local network include the horoscope, the weather forecast, municipal services.

REMARKS

The claims have been amended to remove multiple dependencies and to correct antecedent basis errors. Full examination and favorable action are requested.

Please charge any fees, or make any credits, to Deposit Account No. 50-0591,
Reference No. 09669/017001.

Date: 4/1/02

Jonathan P. Osha, Reg. No. 33,986
Rosenthal & Osha L.L.P.
1221 McKinney, Suite 2800
Houston, TX 77010

Telephone: 713/228-8600
Facsimile: 713/6228-8778



APPENDIX A: MARKED-UP VERSION OF THE CLAIMS

1. Telephony system **[including]** comprising several payphones **[(10,10',10'')]** connected to a set **[(32)]** of information servers via a communication network **[(1) characterised in that]** wherein at least one of the information servers is connected with Internet **[(2)]** and wherein [in that] each payphone **[(10,10',10'')]** is equipped with Internet communication protocols (TCP/IP) complying with IETF technical guidelines.

2. System according to claim 1, further comprising **[characterised in that it includes]** a remote access server **[(20)]** able to put into communication all the payphones **[(10,10',10'')]** with the set **[(32)]** of the information servers by routing the information via Internet addresses through the said communication network **[(1)]**.

3. System according to claim 1 [2], **[characterised in that the]** wherein said communication network is an analogue or digital switched telephone network **[(1)]**.

4. System according to claim 1, **[characterised in that]** wherein the said communication network is the Internet, the said payphones **[(10, 10', 10'')]** being also connected with Internet.

5. System according to claim 1 [to any of the claims 1 to 3], **[characterised in that]** further comprising an [one] communication interface **[(31)]** between the remote access server **[(20)]** and the set **[(32)]** of information servers **[is]** able to monitor, synchronise and regulate information exchange sessions between the payphones **[(10,10',10'')]** and the information servers **[(331,332,341,342,343)]**.

6. System according to claim 5, **[characterised in that]** wherein the said information exchange session monitoring **[consists in]** comprises establishing a reliable and authenticated session between a payphone **[(10,10',10'')]** and an information server **[(331,332,341,342,343)]** and in piloting and regulating the information exchange made via a standard file transfer complying with the Internet protocols.

7. System according to claim 5 [one of the claims 5 or 6], **[characterised in that]** the said information exchange sessions include payphone management sessions between the management servers **[(331,332)]** and the payphones **[(10,10',10'')]**.

8. System according to claim 7, **[characterised in that]** wherein the said management sessions include initialisation sessions for the payphones **[(10,10',10'')]**, daily reports, alarm reports, downloading of software programmes and/or files, report on transactions.

9. System according to claim 8, **[characterised in that]** wherein the said files include rate tables, configuration parameters, opposition or monitoring lists, files on the payphone status [(10,10',10'')].

10. System according to claim 7 **[any of the claims 7 to 9]**, **[characterised in that]** wherein the said management servers **[are made of]** comprise a supervision server [(331)] and a software programme and/or file server [(332)].

11. System according to claim 5 **[any of the claims 5 to 10]**, **[characterised in that]** wherein the said information exchange sessions include sessions for providing services between servers of services [(341,342,343)] and the payphones [(10,10',10'')].

12. System according to claim 1 **[any of the claims 1 to 11]**, **[characterised in that]** wherein the set [(32)] of information servers is arranged into a local network [(30)].

13. System according to claim 11 **[one of the claims 11 or 12]**, **[characterised in that]** wherein the said services **[are]** comprise on line services provided on Internet [(2)] or self-managed on the local network [(30)].

14. System according to claim 13, **[characterised in that]** wherein the said services provided on line include electronic mail, E-commerce.

15. System according to claim 13 **[to one of the claims 13 or 14]**, **[characterised in that]** wherein the said services provided online comprise the content of Web pages for which the hyperlinks are attached to the function keys of payphones [(10,10',10'')].

16. System according to claim 13 **[to one of the claims 13 to 15]**, **[characterised in that]** wherein the said services provided on the local network [(30)] include the horoscope, the weather forecast, municipal services [, etc].

PUBLIC TELEPHONE MANAGEMENT

5 This invention concerns a telephony system with a number of public telephones connected to a set of information servers via a communication network.

This invention is applied especially advantageously to all telephony systems comprising public telephones, whether they are with a public or private operator.

10 Telephony systems are now known in which the whole of public telephones, also named "payphones", is connected with a communication network comprising the switched telephone network (STN) with which they communicate using a modem and according to a specific protocol, named owner protocol. A supervision server is also connected via a modem with the
15 switched telephone network, this server often called PMS in relation with the English expression "Payphone Management System", fitted with the same owner protocol as the payphones. This supervision server's function is to exchange with the payphones population information concerning the telephony system operation.

20 As an example, a payphone may call the supervision server via the switched telephone network at a given time or if there is an alarm, in order to send information relative to the use of this payphone, such as the number of calls made, the number of units involved, etc. All this data is then consolidated by the supervision server so as to prepare various statistics.
25 Inversely, the supervision server may supply information to the payphones, such as new tables of rates or parameters when they are modified.

However, these known telephony systems have a number of drawbacks. In particular, the architecture used is centred around a supervision server that is a PC computer where the central unit power is
30 often too small to manage a large network of payphones, the more so as it also has to directly manage modem cards with its bus. Furthermore, the use of an owner protocol is on the one hand, difficult, as it is necessary to often

change it at each system modification, and on the other hand limited as it only allows exchanging information with servers equipped with the same specific protocol.

5 Thus, the technical problem to be solved with this invention is to propose a telephony system including a number of payphones connected to a set of information servers via a communication network, that, on the one hand, has a decentralised, open and evolving architecture, enabling an exchange of information extending to large number of servers, in particular
10 service providers, detached from the communication network.

 The solution of the technical problem consists, according to this invention, in that at least one of the information servers is connected to Internet, and in that each payphone is equipped with Internet communication protocols complying with the IETF technical guidelines.

15 Thus, the users of the telephony system as per this invention may access a large number of information servers over the Internet network, with their choice only depending on the system operator. Furthermore, the operator may, at any time and very simply, add new servers available to users, thanks to the flexibility and the evolving and open character of the
20 invention telephony system resulting from its attachment to Internet. It is sufficient for this to allocate an Internet address to each new server.

 Another advantage of this invention is in the fact that it allows a dispersion of the supervision means into one supervision server itself, responsible for managing the information exchange with payphones and to
25 make up statistics, and a software and/or files server. Of course, each of these servers will have received its own Internet address. In this way, the supervision server is free of all transfer operations for software and files, which makes it more available for its other tasks.

 According to a first embodiment, the telephony system relating to this
30 invention comprises a remote access server able to put into communication all the payphones with the whole of the information servers, by routing information via Internet addresses through the said communication

network. In such case, all the connections to payphones via modems are diverted to the remote access server, which relieves as much the supervision server. As an example, the said communication network is an analogue or digital switched telephone network.

According to a second embodiment, the said communication network is Internet, the said payphones being also connected to Internet.

The following description facing the attached drawing, given as a non-limiting example, will explain clearly what the invention is and how it may be embodied.

Figure 1 is a diagram of a first telephony system in accordance with the invention.

Figure 2 is a diagram of a second telephony system in accordance with the invention.

On figure 1 is shown a telephony system including several payphones 10, 10', 10'', ... connected to a set 32 of information servers via a communication network that, in the example of figure 1 embodiment, is an analogue or digital switched telephone network (STN 1).

As can be seen on figure 1, the set 32 of information servers is connected to Internet 2, whereas the payphones 10, 10', 10'',... are equipped with communication protocols TCP/IP complying with the IETF (Engineering Task Force) technical guidelines.

In the embodiment shown on figure 1, a remote access server is placed between the communication network 1 and the set 32 of servers and is responsible for putting into communication the payphones 10, 10', 10'',... with the information servers 331, 332, 341, 342, 343 by routing the information via Internet addresses allocated to the said servers. The physical layer of the payphones is achieved here using analogue or digital modems (ISDN). Practically, the server 20 may be made of a router of the 3620-CH type manufactured by the Cisco company.

It must be noted here that, whether in the figure 1 example the communication network shown is an analogue or digital switched telephone

network, the telephony system in this invention could also be embodied, as per figure 2, with Internet as a communication network, the payphones 10, 10', 10'',... being also connected to Internet via an Internet service provider
5 ISP.

In figure 1, it is possible to see the existence of a communication interface 31 situated between the remote access server 20 and the set 32 of information servers. This interface 31 is responsible for monitoring, synchronising and regulating the information exchange sessions between
10 payphones 10, 10', 10''... and the servers 331, 332, 341, 342, 343. One of the functions of the said communication interface 31 is to set information exchange sessions that are reliable and authenticated consisting for example in identifying in a definite manner the payphones during an information exchange with the servers, or also to code data in order to secure the
15 communication if necessary.

Another function of the communication interface 31 is to pilot and regulate the information exchanges made by transferring standard files and files complying with the Internet protocols. During such transfers, the interface 31 must in particular detect any virus that may infect the files.

20 Practically, the communication interface 31 may be made of a PC type computer operating with Windows NT (registered trademark). Any request for connecting to a server 331, 332, 341, 342, 343 reaches the input port 311 that is continuously listened to by interface 31, then redirected towards a working port 312. The request is then analysed using a software application
25 in the Java language (registered trademark) enabling the monitoring and setting of a session as meant in the protocol. A standard interface (socket) is then opened and the request is sent to the intended server, and vice-versa.

As can be seen in figures 1 and 2, the whole 32 of information servers is made into a local network 30, Ethernet for instance. In the case of figure
30 1, the communication interface 31 is part of the local network 30. This architecture in a local network facilitates the servers' maintenance and supervision.


In figure 1, there has been a separation in the server assembly 32, of a first assembly 33 of management servers for payphones 10, 10', 10",... and a second assembly 34 of service provider servers.

5 As has been already described above, the main function of the assembly 33 of management servers is to exchange with payphones 10, 10', 10",...information on their operation and more generally the operation of the global telephony system. As an advantage and contrary to the systems presently known, the assembly 33 of management servers includes a
10 supervision server 331 (PMS) and a software programme and/or files server 332 (FTP = File Transfer Protocol). The supervision server 331 is responsible for organising information exchanges between payphones 10, 10', 10",... and the management assembly 33, especially for monitoring file and/or software programme transfers, in particular the downloads, between payphones and
15 the FTP 332 server. Furthermore the PMS 331 server manages the payphones initialising sessions and establishes statistical data from information received from payphones 10, 10', 10",...

The FTP 332 server is intended either to provide payphones with the files necessary for their operation, such as tables of rates, configuration
20 parameters, for instance regarding the numbering system, opposition or monitoring lists, status files for payphones, or to receive from payphones information regarding their use, i.e. report on transactions, a daily report including in particular data concerning traffic, a report on alarms that allows warning the whole management 33 of some events that may have occurred
25 on payphones, such as a breakdown in the card reader or a handset torn-up, so as to organise the service of a monitoring agent.

It is seen in figure 1 that the FTP 332 server is not connected to interface 31. This is because, due to this server's speciality, this connection is not necessary, but this server remains however under the monitoring of
30 the supervision server 331.

A management session may run as follows. At a predetermined time or in case of an alarm, a payphone calls the remote access server 20 to reach



the server PMS 331. The server 20 then allocates dynamically to the payphones a temporary Internet address so as to enable the exchange of information between the server PMS 331 and the payphone. The server PMS 5 331 may then ask the payphone its present status and ask it, for instance, to connect with the server FTP 332 in order to download a new table of rates if it occurred that the previous table in the payphone was not up-to-date. At the end of the communication, the payphone is set back to the waiting status.

10 It should be noted here that communication interface 31, the server PMS 331 and the server FTP 332, instead of being separate items as in figure 1, may be regrouped into a single computer, for instance of the PC type. This will be so, in particular, for small-size-network operators.

15 The second assembly 34 of servers includes servers 341, 342 providing on-line services on Internet, such as e-mail (EM) or E-commerce (EB). These services may also be the content of Web pages for which the hyperlinks are related to the function keys on payphones 10, 10', 10",...

Other services may be services self-managed on the local network, such as publicity (ADV), horoscope, weather forecasts, municipal services, 20 etc.

CLAIMS

1. Telephony system including several payphones (10,10',10")
5 connected to a set (32) of information servers via a communication network
(1) characterised in that at least one of the information servers is connected
with Internet (2) and in that each payphone (10,10',10") is equipped with
Internet communication protocols (TCP/IP) complying with IETF technical
guidelines.

10 2. System according to claim 1, characterised in that it includes a
remote access server (20) able to put into communication all the payphones
(10,10',10") with the set (32) of the information servers by routing the
information via Internet addresses through the said communication network
(1).

15 3. System according to claim 2, characterised in that the said
communication network is an analogue or digital switched telephone
network (1)

20 4. System according to claim 1, characterised in that the said
communication network is the Internet, the said payphones (10, 10', 10")
being also connected with Internet.

25 5. System according to any of the claims 1 to 3 characterised in that
one communication interface (31) between the remote access server (20) and
the set (32) of information servers is able to monitor, synchronise and
regulate information exchange sessions between the payphones (10,10',10")
and the information servers (331,332,341,342,343).

30 6. System according to claim 5, characterised in that the said
information exchange session monitoring consists in establishing a reliable
and authenticated session between a payphone (10,10',10") and an
information server (331,332,341,342,343) and in piloting and regulating the
information exchange made via a standard file transfer complying with the
Internet protocols.

7. System according to one of the claims 5 or 6, characterised in that the said information exchange sessions include payphone management sessions between the management servers (331,332) and the payphones (10,10',10").

8. System according to claim 7, characterised in that the said management sessions include initialisation sessions for the payphones (10,10',10"), daily reports, alarm reports, downloading of software programmes and/or files, report on transactions.

9. System according to claim 8, characterised in that the said files include rate tables, configuration parameters, opposition or monitoring lists, files on the payphone status (10,10',10").

10. System according to any of claims 7 to 9, characterised in that the said management servers are made of a supervision server (331) and a software programme and/or file server (332).

11. System according to any of the claims 5 to 10, characterised in that the said information exchange sessions include sessions for providing services between servers of services (341,342,343) and the payphones (10,10',10").

12. System according to any of the claims 1 to 11, characterised in that the set (32) of information servers is arranged into a local network (30).

13. System according to one of the claims 11 or 12, characterised in that the said services are on line services provided on Internet (2) or self-managed on the local network (30).

14. System according to claim 13, characterised in that the said services provided on line include electronic mail, E-commerce.

15. System according to one of the claims 13 or 14, characterised in that the said services provided online comprise the content of Web pages for which the hyperlinks are attached to the function keys of payphones (10,10',10").

16. System according to one of the claims 13 to 15, characterised in that the said services provided on the local network (30) include the horoscope, the weather forecast, municipal services, etc.

(12) DEMANDE INTERNATIONALE PUBLIÉE EN VERTU DU TRAITÉ DE COOPÉRATION
EN MATIÈRE DE BREVETS (PCT)(19) Organisation Mondiale de la Propriété
Intellectuelle
Bureau international(43) Date de la publication internationale
18 janvier 2001 (18.01.2001)

PCT

(10) Numéro de publication internationale
WO 01/05137 A1(51) Classification internationale des brevets⁷:

H04M 17/02

(72) Inventeur; et

(75) Inventeur/Déposant (pour US seulement): GRUNEN-
WALD, Rodolphe [FR/FR]; 60, rue d'Estienne d'Orves,
F-94340 Joinville le Pont (FR)

(21) Numéro de la demande internationale:

PCT/EP00/06001

(22) Date de dépôt international: 28 juin 2000 (28.06.2000)

(25) Langue de dépôt: français

(26) Langue de publication: français

(30) Données relatives à la priorité:

99/08922

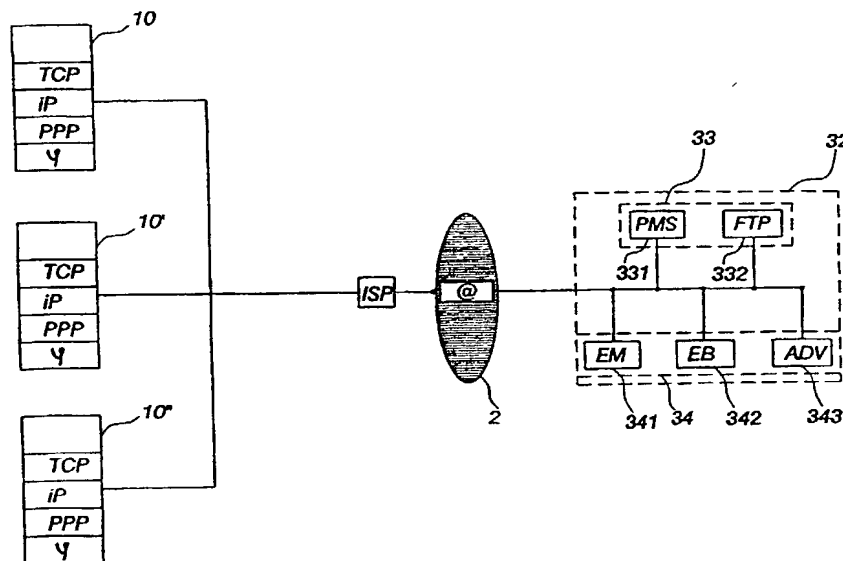
9 juillet 1999 (09.07.1999) FR

(71) Déposant (pour tous les États désignés sauf US):
SCHLUMBERGER SYSTEMES S.A. [FR/FR]; Test &
Transactions, Intellectual Property Dept. 50, avenue Jean
Jaurès, F-92120 Montrouge (FR).(81) États désignés (national): AE, AG, AL, AM, AT, AU, AZ,
BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK,
DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID,
IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL,
PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ,
UA, UG, US, UZ, VN, YU, ZA, ZW.(84) États désignés (régional): brevet ARIPO (GH, GM, KE,
LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), brevet eurasien
(AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), brevet européen
(AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU,

[Suite sur la page suivante]

(54) Title: PAYPHONE MANAGEMENT SYSTEM

(54) Titre: GESTION DE TELEPHONES PUBLICS



(57) Abstract: The invention concerns a telephone system comprising a plurality of payphones (10, 10', 10'') connected to a set (32) of data servers through a communication network (1). The invention is characterised in that at least one of the data servers is connected to the Internet (2), and each payphone (10, 10', 10'') is equipped with the Internet communication protocols (TCP/IP) in conformity with the IETF technical recommendations.

[Suite sur la page suivante]

WO 01/05137 A1

DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63) <input type="checkbox"/> Declaration Submitted with Initial Filing OR <input checked="" type="checkbox"/> Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)	Attorney Docket Number	09969/017001
	First Named Inventor	GRUNENWALD Rodolphe
	COMPLETE IF KNOWN	
	Application Number	10 / 030,653
	Filing Date	January 09, 2002
	Group Art Unit	
	Examiner Name	

As a below named inventor, I hereby declare that:

My residence, mailing address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled.

PAYPHONE MANAGEMENT SYSTEM

(Title of the Invention)

the specification of which

☐ is attached hereto

OR

☒ was filed on (MM/DD/YYYY) 01/ 09/ 2002 as United States Application Number or PCT International

Application Number 10/030,653 and was amended on (MM/DD/YYYY) (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.


I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or (f), or 365(b) of any foreign application(s) for patent, inventor's or plant breeder's rights certificate(s), or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent, inventor's or plant breeder's rights certificate(s), or any PCT international application having a filing date before that of the application on which priority is claimed.

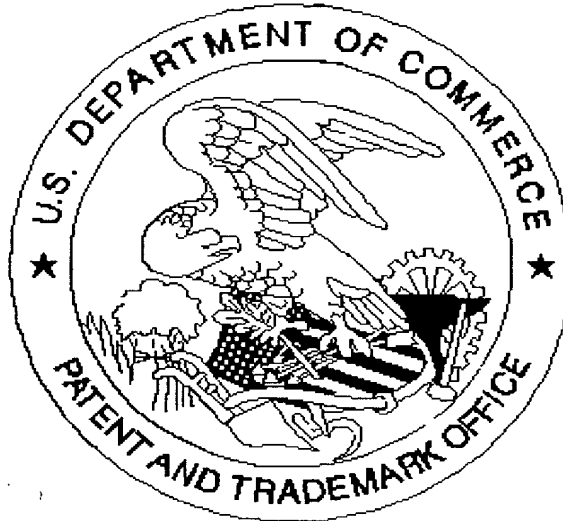
Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
99/08922	France	07/ 09/ 1999	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto

DECLARATION — Utility or Design Patent Application

Direct all correspondence to <input checked="" type="checkbox"/>		Customer Number or Bar Code Label				OR <input type="checkbox"/>		Correspondence address below			
22511 PATENT TRADEMARK OFFICE											
Name											
Address											
City				State			ZIP				
Country				Telephone			Fax				
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.											
NAME OF SOLE OR FIRST INVENTOR :				<input type="checkbox"/> A petition has been filed for this unsigned inventor							
Given Name (first and middle [if any])				Rodolphe			Family Name or Surname			GRUNENWALD	
Inventor's Signature							Date			23/4/2002	
Residence: City				Joinville Le Pont		State		FRX		Country France	
								Citizenship		French	
Mailing Address										50, Avenue Jean Jaurès – B.P. 620-12	
City				Montrouge Cedex		State		ZIP		92542	
								Country		France	
NAME OF SECOND INVENTOR:				<input type="checkbox"/> A petition has been filed for this unsigned inventor							
Given Name (first and middle [if any])				Family Name or Surname							
Inventor's Signature							Date				
Residence: City				State		Country		Citizenship			
Mailing Address											
City				State		ZIP		Country			
<input type="checkbox"/> Additional inventors are being named on the _____ supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto.											

United States Patent & Trademark Office
Office of Initial Patent Examination -- Scanning Division



Application deficiencies found during scanning:

☐ Page(s) _____ of Drawings were not present
for scanning. (Document title)

☐ Page(s) _____ of _____ were not present
for scanning. (Document title)

☐ *Scanned copy is best available.*